



# State of Utah


DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF ENVIRONMENTAL RESPONSE AND REMEDIATION


Michael O. Leavitt  
Governor  
Dianne R. Nielson, Ph.D.  
Executive Director  
Kent P. Gray  
Director

ERRC-070-95

## MEMORANDUM

TO: File  
Leeds Silver Reclamation Site

THROUGH: J. Steven Thriot, Manager   
CERCLA Site Assessment & Emergency Response Section

FROM: Jason L. Knowlton, Environmental Scientist   
CERCLA Site Assessment & Emergency Response Section

DATE: February 9, 1995

SUBJECT: Meeting to Discuss Proposed Removal Actions at the Leeds Silver Reclamation Site

A meeting was held January 24, 1995, at the Leeds Town Hall, Washington County, Utah, between representatives of the U. S. Environmental Protection Agency (EPA), the U. S. Bureau of Reclamation (BoR), the U. S. Bureau of Land Management (BLM), the Utah Division of Oil, Gas and Mining (DOGM), the Utah Division of Environmental Response and Remediation (DERR), the Utah Department of Environmental Quality District Engineer, 5M, Incorporated, and the Washington County Sheriff, to discuss EPA's proposed removal action for the Leeds Silver Reclamation Site. The meeting began at the site at 9:00 am, reconvened at the Leeds Town Hall at 10:00 am, due to inclement weather, and ended at noon.

Following introductions, the BoR presented and discussed plans they had prepared for the EPA for capping and related work for the heap leach pad and the pregnant pond at the site. Initially, both the pregnant pond and the overflow pond will be de-watered. Water from the overflow pond will be used for dust suppression during the project. Remaining water from the ponds will be treated to raise the pH and precipitate metals, and released to the on-site wetland area. Sludge from the ponds will be placed on the heap leach pad. Following the de-watering of the ponds, the levee for the overflow pond will be breached so that water will not be allowed to accumulate in the pond. The heap leach pad will then be re-graded over the area currently occupied by leach pad and the pregnant pond, and a french drain will be installed to collect any water or leachate draining from the material. A synthetic liner, consisting of a seal and a filter/drain, will be



placed atop the material on the leach pad. Atop this will be placed a 2 foot soil cover and 2-3 feet of rock. Rock will be utilized rather than a vegetative cover due to the dry desert climate, and the idea that the rock cover will eliminate the need for a fence and will discourage off-road vehicles from driving over the pad. Surface water drainage will be diverted around the heap leach pad and manholes will be installed for the monitoring and removal of any leachate generated after the placement of the cap. The existing asphalt/bentonite bottom liner will be utilized to the maximum extent permissible.

A general discussion followed the BoR's presentation and the following issues were raised.

- 5M, Inc. indicated that a leachate monitoring and collection system was already in place under the leach pad. This consists of perforated PVC pipe underlying the pad and draining to the south end of the site. A potential release can be detected by visual observation of leachate flowing from the pipes.
- The EPA indicated that the anticipated cost of the removal action is estimated at \$470,000.
- The DOGM stated that they would like to utilize the forfeited bond money (\$50,000 to \$60,000) to remove tanks and other structures at the site and mitigate other potential physical hazards.
- The BLM voiced concern over whether National Environmental Policy Act, Environmental Impact Statement requirements would have to be met, as the BLM owns a substantial portion of the site. The EPA indicated that these requirements may not have to be met for this emergency response action. The BLM will check into this further.
- The EPA indicated, in further response to the BLM's concerns as a property owner, that the BLM may not be considered as a significant Potentially Responsible Party (PRP) since the BLM did not realize any substantial positive gain from the past site activities. The question was brought forth as to who would be responsible for long-term monitoring, operation and maintenance activities to which EPA responded that the need for long-term activity has not been determined. It is anticipated that water will only be generated for a short period of time following the placement of the cap, which will be pumped from the drain system and treated as necessary. No other long-term action is anticipated.
- 5M, Inc. stated that land ownership may be an issue at this site as 5M is on "step 8 or 9 of a 10 step process" under patenting law for acquiring surface rights. 5M, Inc. further indicated that they did not agree with the EPA's wetland designation for the area southeast of the heap leach pad and ponds, citing adequate drainage for the historic mining operations in the area. 5M alleged that a canal flowing



adjacent to the site had been routed in the past to the California mine shaft, southeast of the wetland area, inundating the underground workings, and that the canal now flows into the wetlands. 5M stated that if the canal were to be piped across the wetland area near the site that the wetlands would dry out. 5M further alleged that 2 ground water supply wells for the Hidden Valley Water Users Association were placed near the southeast portion of the wetland area "illegally" with the support of the State Engineer and the Washington County Commission.

- The EPA indicated, in response to a comment by the DERR, that a work plan would be prepared to accompany the drawings already submitted by the BoR. The BoR stated that they would like any comments on the drawings within 2 weeks. The EPA reiterated that water from the pregnant pond would not be used for dust suppression, but would be treated by raising the pH and precipitating out metals, then discharging the treated water to the wetland, with sampling and testing of the water as necessary. The DERR indicated that they would check with the Utah Division of Water Quality (DWQ) to determine the degree of oversight, testing and other permitting activities which would be required by the DWQ.
- The DOGM questioned whether ground water at the site had been adequately characterized and whether further ground water assessment is warranted or if the possibility of removing ground water or otherwise lowering the water table has been assessed to eliminate potential problems with ground water. The DERR responded that ground water at this site is likely very complex due to a large degree of folding, faulting and fracturing in bedrock underlying the site, and that a ground water investigation would be very costly, and probably beyond the scope of the planned removal activities.
- The DOGM indicated that they have knowledge of ASARCO (American Smelting and Refining Company) having worked in this area in the past and questioned whether the EPA had evaluated ASARCO as a PRP. The EPA answered that this issue would have to be taken up with the EPA enforcement specialist.
- The DERR mentioned several other mill sites in the area which would be evaluated under the Site Assessment program in the near future. Preliminary Assessments will be conducted at the newly "discovered" Leeds Mill, located on Leeds Creek southwest of the Leeds Silver Reclamation Site, the Barbee and Walker Mill, located up the draw, north of the Leeds Silver Reclamation site near Silver Reef, and the Stormont Mill, at an unknown location along the Virgin River. 5M, Inc. then indicated that the location of the Stormont Mill is at the south edge of East Reef on the Virgin River. A Site Inspection, and associated



sampling, is also planned for the Southwest Assay Site, or the Christy Mill tailings, located northeast of the Leeds Silver Reclamation Site near Silver Reef.

- The EPA mentioned other activities that would be conducted as part of the response for the Leeds Silver Reclamation Site, including the removal of PCB containing transformers and PCB contaminated soil and/or concrete near the site, the removal of a tank located south of the site containing caustic material and several buried 5 gallon containers northeast of the site containing flammable material. Community Relations activities will also be conducted which will include the mailing of a Fact Sheet describing the planned activities to concerned citizens, the media and elected officials.
- The BoR concluded the meeting stating that they are ready to start work at the site as soon as possible.



## LEEDS TOWN HALL MEETING ATTENDANCE LIST

Design plan discussions for EPA's 5M Silver Reef Clean up  
(January 24, 1995)

<u>NAME</u>	<u>AFFILIATION</u>	<u>PHONE</u>
Jason Knowlton	Utah Division Environmental Response	(801) 536-4100
Wayne Thomas	Department of Environmental Quality	(801) 673-3528
Clark Whitlock	Bureau of Reclamation	(801) 379-1093
Mike Christianson	Bureau of Reclamation	(801) 379-1000
Gordon Bell	Bureau of Reclamation	(801) 379-1224
Pete Stevenson	U.S. EPA (Emergency Response Branch)	(303) 293-1723
Glenwood Humphries	Washington County Sheriff	(801) 673-8935
Joe Ipson	5M, Inc.	(801) 635-4714
Jerry Glazier	5M, Inc.	(801) 635-4714 (?)
Craig Zufelt	BLM (Cedar City - District Office.)	(801) 586-2401
Larry Gore	BLM (Dixie Resource Area)	(801) 673-4654
Bill Wagner	BLM (SLC - State Office)	(801) 539-4062
Mary Ann Wright	DOGM - Abandoned Mine Reclamation	(801) 538-5340
Chris Rohrer	DOGM - Abandoned Mine Reclamation	(801) 538-5340
D. Wayne Hedberg	DOGM- Minerals Regulatory Program	(801) 538-5340

M053002.ins

